

NEW DESCRIPTIONS

A NEW SPECIES OF *GAGEA* (LILIACEAE) FROM PAKISTAN¹

SYAMALI DASGUPTA & D. B. DEB²
(With a text-figure)

A new species of *Gagea* Salisb. (Liliaceae) is described from Pakistan.

Gagea toppinii sp. nov.

Differt a *G. lutea* (L.) Ker-Gawl. foliis caulinis linearibus, foliis radicalibus bulbiferi-
sque ubi affixis in plantis maturis, perianthii-
sque exteriore villosis; ab *G. anisanthos* C.
Koch statura multo minore, perianthiis exte-
riore villosis, ovariis supra non depressis.
Typus: Pakistan, Chitral, Major S. N. Toppin
17 (holotypus K).

Herba bulbifera, gregaria, parva, erecta; bulbi ovoidei, basi folii solitarii formantes, basibus 2-3 foliorum, radicalium siccis annorum praecedentium circumcincti; bulbeli 1 vel 2, saepe folia ferentes ubi affixi ad plantam maternam. Folia radicalia saepe duo, linearia, glabra, inflorescentiam superantia, caulis teres, pubescens, folia duas inaequilongas ferens in inflorescentiis terminalibus. Folia caulina subopposita, linearia inaequalia, superiora perbrevia. Inflorescentia 3-4 flori-
fera, scorpioidei cymosa, condensis. Flores bisexuales, hypogyni, campanulati; bractee foliaceae, lineares. Perianthia biseriata, segmenta 6, libera, costa prominens; segmenta exteriora dorsali pubescentia. Stamina 6, libera; fila perianthii basi adherentia; antherae oblongae basifixae, dehiscentes latrorse. Pistilla

syncarpa; ovarium sessile, oblongum, triloculare, triquetrum; stylus triquetrus; stigmata trifida, truncata. Fructus non visus.

Herbs small, erect, gregarious, 6-8 cm long, bulbous; bulbs 4-5 mm x 3-4 mm, ovoid, formed of a solitary fleshy radical leaf base, surrounded by 2-3 dry previous years' radical leaf bases; bulbel 1 or 2, bearing leaf when still attached to the mother plant. Radical leaves 10-11 cm long, \pm 1 mm broad,

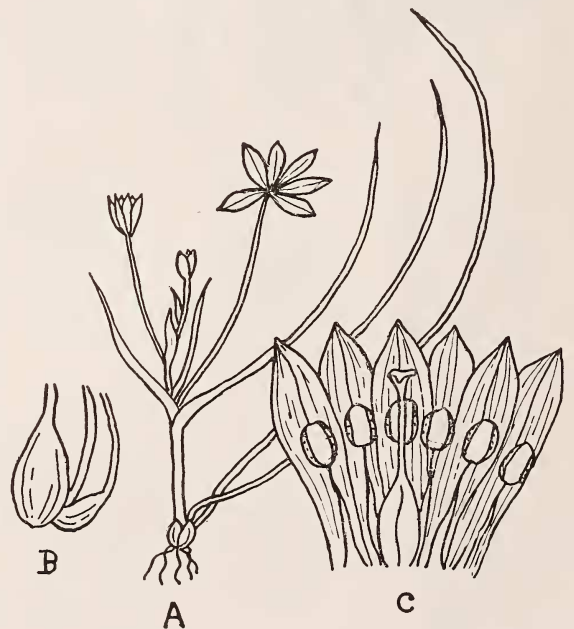


Fig. 1. *Gagea toppinii* sp. nov.

A. Habit; B. Bulb without outer scales and with bulbel; C. Floral parts.

¹ Accepted July 1985.

² Botanical Survey of India, Howrah.

linear, acute at the apex, fleshy at the base, glabrous, overtopping the inflorescence. Stem 1.5-2 cm long, terete, pubescent, bearing 2 unequal leaves below the terminal inflorescence. Cauline leaves subopposite, unequal, 1.5-6 cm long, linear, ± 1 mm broad at the base, the lower overtopping the inflorescence, the upper much shorter. Inflorescence 3-4 flowered, condensed scorpioid cyme. Flowers bisexual, hypogynous, broadly campanulate; pedicel 3-6 cm long, slender, pubescent; bracts foliaceous, 3-5 mm long, linear. Perianth biseriate, segments 6, free, 7-8 mm long, 1.7-2 mm broad, oblanceolate, acute at the apex, midvein prominent, dorsal side of outer segments pubescent. Stamens 6, free; filaments

± 4 mm long, 0.5 mm broad at the base, linear, attached at the base of the perianth; anthers ± 1.2 mm long, ± 1 mm broad, oblong, basifixed, latrorse in dehiscence. Pistil syncarpous, tricarpellary; ovary sessile, 3-3.5 mm long, ± 1 mm broad, oblong, trilocular, triquetrous; style 3-3.5 mm long, ± 0.5 mm across, stout, linear, triquetrous; stigma trifid, truncate. Fruit not seen. (Fig. 1).

PAKISTAN: Chitral, Drosh, 4500 ft, March 1908, *Major S. M. Toppin* 17 (holotype K).

We are grateful to the Director and Keeper of the Royal Botanic Gardens, Kew for the loan of specimens for revision of the genus *Gagea* in India and adjoining regions, which resulted in the discovery of this species.

DESCRIPTION OF A NEW GALL MIDGE SPECIES (DIPTERA:
CECIDOMYIIDAE) FROM MAHARASHTRA, INDIA¹

R. M. SHARMA²
(With fourteen text-figures)

A new species of *Odontodiplosis* Felt, *O. raoi* sp. nov. is fully described and illustrated. A key to Indian species is also provided for easy identification.

***Odontodiplosis raoi* sp. nov.**

MALE: Body 1.10 mm long. Eyes confluent above. Trophi slightly produced. *Palpus*: quadriarticulate, moderately long, light-straw, sparsely setose; first segment (10:5) short, length 2.00 x its maximum thickness; second segment (14:6) cylindrical, longer than first, length 2.33 x its maximum thickness; third segment (14:6) cylindrical, broad subapically, as long as second; fourth segment (19:5)

cylindrical, longest of all, 3.80 x its maximum thickness. *Antenna*: Longer than body with 2 + 12 binodose, tricircumfilar segments, basal enlargement with one and apical with two whorls of regular circumfila; scape (10:17) cupshaped, pedicel (13:13) globose; third segment (50) confluent with and as long as fourth, with a very small basal prolongation (3:4), basal enlargement globose, 0.24 the length of the segment and as long as broad, basal stem (10:5) 0.83 the length of the basal enlargement and twice as long as thick; apical enlargement (15:11) longer than basal, 1.36 x its maximum thickness, apical stem (12:5) 0.80 the length of the apical enlargement and 2.40 x as long as thick; fourth segment (50) similar to the third, except for the apical stem (12:4) measuring 3.00 x its maximum thickness; fifth segment (48) shorter

¹ Accepted April 1985.

² Zoological Survey of India, Western Regional Station, Pune-411 016, India.